PTO/SB/21 (02-04) Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE er the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 10/665,900 TRANSMITTAL Filing Date September 19, 2003 **FORM** First Named Inventor Jean M.J. Frechet Art Unit used for all correspondence after initial filing) 1743 **Examiner Name** Attorney Docket Number 7 IB-1829 Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication Fee Transmittal Form Drawing(s) to Group Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to Group Petition Amendment/Reply (Appeal Notice, Brief, Reply Brief) Petition to Convert to a Proprietary Information After Final **Provisional Application** Power of Attorney, Revocation Status Letter Affidavits/declaration(s) Change of Correspondence Address Other Enclosure(s) (please Terminal Disclaimer **Extension of Time Request** Identify below): Non-U.S. Patent references and Request for Refund **Express Abandonment Request** Return Postcard CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Individual name Chew; Lawrence Berkeley National Laboratory Signature Date CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. Washington, DC 20231 on this date: Typed or printed name

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature

Date

04/15/2004

I hereby certify that this correspondence is being deposited with the United

States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

on April 15,2004

LAWRENCE BERKELEY NATIONAL LABORATORY

Michelle S. Chew

Attorney Docket No.: PATENT IB-1829

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jean M.J. Fréchet, et al.

Application No.: 10/665,900

Filed: September 19, 2003

For: PHOTOINITIATED GRAFTING OF POROUS POLYMER MONOLITHS AND THERMOPLASTIC POLYMERS FOR MICROFLUIDIC DEVICES Examiner: Not yet assigned

Art Unit: 1743

INFORMATION DISCLOSURE

STATEMENT UNDER 37 CFR §1.97 and

§1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the non-U.S. patent references are enclosed. In conformity with proposed U.S. Patent and Trademark Office rules set forth in OG Notice: 05 August 2003, Applicants have not included copies of each cited U.S. patent and each U.S. patent application publication because Applicant's U.S. national patent application was filed after June 30, 2003. The requirement to submit a copy of each cited U.S. patent and each U.S. patent application publication, as set forth in current 37 CFR 1.98(a)(2)(i), is waived per the cited OG Notice.

Jean M.J. Fréchet, et al. Application No.: 10/665,900

Page 2

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that <u>no fee is required</u> for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 120690. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Wichele Schen

Michelle S. Chew Reg. No. 50,456

LAWRENCE BERKELEY NATIONAL LABORATORY

One Cyclotron Road, MS 90B-0104

Berkeley, California 94720

Tel: 510-486-7058 Fax: 510-486-7896

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO Complete if Known **Application Number** 10/665,900 INFORMATION DISCLOSURE **Filing Date** September 19, 2003 STATEMENT BY APPLICANT **First Named Inventor** Fréchet, Jean M.J., et. al. Art Unit 1743 (use as many sheets as necessary) **Examiner Name** Not yet assigned Sheet of 4 Attorney Docket Number IB-1829

APR 1 9 2004

	U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
	AA	US-5316,680	05-31-1994	Fréchet, et al.			
	AB	US-5,334,310	08-02-1994	Fréchet, et al.			
	AC	US-5,431,807	07-11-1995	Fréchet, et al.			
	AD	US-5,453,185	09-26-1995	Fréchet, et al.			
	ΑE	US-5,522,994	06-24-1996	Fréchet,et al.			
	AF	US-5,547,575	08-20-1996	Demmer, et al.			
	AG	US-5,633,290	01-14-1997	Fréchet, et al.			
	AH	US-5,728,457	03-17-1998	Fréchet, et al.			
- "	Al	US-5,744,250	04-28-1998	Lee, et al.			
	AJ	US-5,929,214	07-27-1999	Fréchet, et al.			
	AK	US-6,013,855	01-11-2000	McPherson, et al.			
	AL	US-6,306,273	10-23-2001	Wainwright, et al.			
	AM	US-6,358,557	03-19-2002	Wang, et al.			
	AN	US-6,361,958	05-07-2002	Shieh, et al.			
	AO	US-6,384,100	05-07-2002	Choi, Wai Ming			
	AP	US-5,786,428	07-28-1998	Arnold, et al.			
	CI	US-20010007701	07-12-2001	Karger, et al.			

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
ALLMER K, Hult A, Ranby B., Surface modification of polymers. II: Grafting with glycidyl acrylate and the reacti the grafted surface with amines. J. Polym Sci Polym Chem 1989; 27:1641-52.						
	AR	ALLMER K, Hult A, Ranby B., Surface modification of polymers. III: Grafting of Stabilizers onto Polymer Films. J. Polym Sci Polym Chem 1989; 27:3405-13.				
AS technique for modification of polymers especially polyolefins. In: Carraher Jr CE, Moore JA, ed polymers. New York: Plenum Press, 1983. p. 33-53.		ANG CH, Garnett JL, Levot RG, Long Ma. The effect of additives for accelerating radiation grafting. The use of the technique for modification of polymers especially polyolefins. In: Carraher Jr CE, Moore JA, editors. <i>Modification of polymers</i> . New York: Plenum Press, 1983. p. 33-53.				
		AUROUX P.A., lossifidis D., Reyes D.R., Manz A., "Micro Total Analysis Systems. 2. Analytical Standard Operations and Applications," <i>Anal. Chem.</i> 2002, <i>74</i> , 2637.				
	AU	BARKER S. L. R., Tarlov MJ, Canavan H, Hickman JJ, and Locascio LE, "Plastic Microfluidic Devices Modified with Polyelectrolyte Multilayers", <i>Anal. Chem.</i> ; 2000; 72(20) pp 4899 – 4903.				

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

SF 1446704 v1



EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

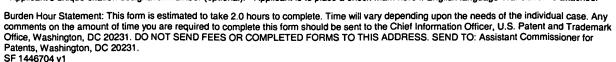
Substitute	for form 1449	в/РТО		Complete if Known		
INIEO	DIA A TI	2N DIO		Application Number	10/665,900	
			CLOSURE	Filing Date	September 19, 2003	
STAT	TEMENT	BYA	PPLICANT	First Named Inventor	Fréchet, Jean M.J., et. al.	
				Art Unit	1743	
	(use as man	y sheets as	necessary)	Examiner Name	Not yet assigned	
Sheet	12	of	4	Attorney Docket Number	IB-1829	

	,	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ,
	AV	BERMAN, et al., "Total Alignment of Calcite at Acidic Polydiacetylene Films: Cooperativity at the Organic-Inorganic Interface," Science, Volume 269, pp. 515-518, (July 28, 1995)	
	AW	CHAN C.M., Ko T.M., Hiraoka H., "Polymer Surface modification by plasmas and photons," Surf. Sci. Rep. 1996, 24, 3.	
	AX	CHEN, W. And McCarthy, TJ, "Layer-by-Layer Deposition: A Tool for Polymer Surface Modification," Macromolecules 1997, 30, 78-86, January 13,1997.	
	AY	CHIARI M, Cretich M, Stastna M, Radko SP, Chrambach A, "Rapid capillary coating by epoxy-poly- (dimethylacrylamide): Performance in capillary zone electrophoresis of protein and polystyrene carboxylate," Electrophoresis. 2001;22(4):656-9	
	AZ	ECKERT AW, Grobe D, Rothe U., Surface-modification of polystyrene-microtitre plates via grafting of glycidylmethacrylate and coating of poly-glycidylmethacrylate, <i>Biomaterials</i> . 2000 Mar;21(5):441-7.	
	ВА	HENRY A.C., Tutt T.J., Galloway M., Davidson Y.Y., McWhorter C.S., Soper S.A., McCarley R.L., "Surface Modification of Poly(methyl methacrylate) Used in the Fabrication of Microanalytical Devices," <i>Anal. Chem.</i> Nov 1, 2000, 72, 5331.	
	ВВ	HU, S. et al., "Surface Modification of Poly(dimethylsiloxane) Microfluidic Devices by Ultraviolet Polymer Grafting," Anal. Chem., 74, 4117-4123, June 6, 2002.	
	вс	KAMATH KR, Park K., "Surface modification of polymeric biomaterials by albumin grafting using h-irradiation," J Appl Biomater. 1994 Summer;5(2):163-73.	
	BD	KATO, K., Uchida, E., Kang, E. T., Uyama, Y., & Ikada, Y. "Polymer surface with graft chains," <i>Progress in Polymer Science</i> , 28(2): 209-259, 2003	
	BE	LISTON E., Martinu L., Wertheimer M., "Plasma Surface Modification of polymers for improved adhesion: a critical review," <i>J. Adhes. Sci. Technol.</i> 1993, 7, 1091.	
	BF	MA Z, Gao C, Shen J, "Surface modification of poly-L-lactic acid (PLLA) membrane by grafting acrylamide: an effective way to improve cytocompatibility for chondrocytes," <i>J Biomater Sci Polym Ed.</i> 2003;14(1):13-25.	
	BG	MEYER, U., Svec, F., and Frechet, JMJ, "Use of Stable Free Radicals for the Sequential Preparation and Surface Grafting of Functionalized Macroporous Monoliths," <i>Macromolecules</i> 2000, 33, 7769-7775, Sept 28, 2000.	
	ВН	NAKAYAMA Y, Matsuda T, Irie M., "A novel surface photo-graft polymerization method for fabricated devices," ASAIO J. 1993 Jul-Sep;39(3):M542-4.	
	Ві	OSTER G., Shibata O., "Graft Copolymer of Polyacrylamide and Natural Rubber Produced by Means of Ultraviolet Light," <i>J. Polym. Sci.</i> 1957, 26, 233-234.	

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.





PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO	Complete if Known		
INFORMATION DICOLOGUE	Application Number	10/665,900	
INFORMATION DISCLOSURE	Filing Date	September 19, 2003	
STATEMENT BY APPLICANT	First Named Inventor	Fréchet, Jean M.J., et. al.	
	Art Unit	1743	
(use as many sheets as necessary)	Examiner Name	Not yet assigned	
Sheet 3 of 4	Attorney Docket Number	IB-1829	

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	BJ	PETERS, EC, Svec, F, and Frechet JMJ, "Control of Porous Properties and Surface Chemistry in "Molded" Porous Polymer Monoliths Prepared by Polymerization in the Presence of TEMPO," <i>Macromolecules</i> 1999, 32, 6377-6379, Aug 19, 1999.	
	вк	PETERSON, H., et al., "Poly(ethylenimine-co-L-lactamide-co-succinamide): A Biodegradable Polyethylenimine Derivative with an Advantageous pH-Dependent Hydrolytic Degradation for Gene Delivery," <i>Bioconjugate Chem.</i> 2002, 13, 812-821, 06/01/2002.	
	BL	QIN D., Xia Y.N., Rogers J.A., Jackman R.J., Zhao X.M., Whitesides G.M., "Microfabrication, Microstructures and Microsystems," <i>Top. Curr. Chem.</i> 1998, <i>194</i> , 1-20.	
	ВМ	RÅNBY B., "Surface Modification of Polymers by Photoinitiated Graft Polymerization," <i>Makromol. Chem.</i> , <i>Macromol. Symp.</i> 1992,63, 55.	
	BN	RÅNBY B., Yang W.T., Tretinnikov O., "Surface photografting of polymer fibers, films and sheets," Nucl. Instrum. Methods Phys. Res., Sect. B 1999,151, 301-305.	
	во	REYES D.R., lossifidis D., Auroux P.A., Manz A., "Micro Total Analysis Systems. 1. Introduction, Theory, and Technology," Anal. Chem. 2002, 74, 2623.	
	BP	ROHR T., Yu C., Davey M.H., Svec F., Fréchet J.M.J., "Porous polymer monomliths: Simple and efficient mixers prepared by direct polymerization in the channels of microfluidic chips," <i>Electrophoresis</i> 2001, <i>22</i> , 3959.	
	BQ	SHIN DS, Lee KN, Jang KH, Kim JK, Chung WJ, Kim YK and Lee YS, "Protein patterning by maskless photolithography on hydrophilic polymer-grafted surface," <i>Biosensors and Bioelectronics</i> , Volume 19, Issue 5, 30 December 2003, Pages 485-494	
	BS	SCHWEITZ, L, Andersson, L.I., and Nilsson, S., "Rapid electrochromatographic enantiomer separations on short molecularly imprinted polymer monoliths," <i>Analytica Chimica Acta</i> 435 (2001) 43-47.	
	вт	STACHOWIAK TB, Rohr T, Hilder EF, Peterson DS, Yi M, Svec F, Frechet JM, "Fabrication of porous polymer monoliths covalently attached to the walls of channels in plastic microdevices," <i>Electrophoresis</i> . 2003 Nov;24(21):3689-93.	
	BU	SVEC, F.; Fréchet, J. M. J., "Continuous Rods of Macroporous Polymer as High Performance Liquid Chromatography Separation Media," <i>Anal. Chem.</i> 1992, <i>54</i> , 820.	
	BV	SVEC, F.; Fréchet, J. M. J., "New Designs of Macroporous Polymers and Supports: From Separation to Biocatalysis," <i>Science</i> 1996, <i>273</i> , 205	
	BW	SVEC F., Yu C., Rohr T., Fréchet J.M.J., in <i>Micro Total Analysis Systems 2001</i> , Ramsey J.M., van den Berg A. (Eds.), Kluwer Acad. Publ., Dordrecht, 2001, p. 643-645.	
	вх	SVEC F., Fréchet J.M.J., Hilder E.F., Peterson D.S., Rohr T., in <i>Micro Total Analysis Systems 2002</i> , Baba Y., van den Berg A. (Eds.), Kluwer Academic Publishers, Dordrecht, 2002, p. 332-334.	

Examiner	Date	1
Signature	Considered	
Colginataro	00110100100	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. SF 1446704 v1



Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO	Complete if Known		
INFORMATION DIGOLOGUES	Application Number	10/665,900	
INFORMATION DISCLOSURE	Filing Date	September 19, 2003	
STATEMENT BY APPLICANT	First Named Inventor	Fréchet, Jean M.J., et. al.	
	Art Unit	1743	
(use as many sheets as necessary)	Examiner Name	Not yet assigned	
Sheet 4 of 4	Attorney Docket Number	IB-1829	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T			
	ВУ	THROCKMORTON DJ, Shepodd TJ, and Singh AK, "Electrochromatography in Microchips: Reversed-Phase Separation of Peptides and Amino Acids Using Photopatterned Rigid Polymer Monoliths," <i>Anal. Chem.</i> ; Feb 15, 2002; 74(4) pp 784 – 789.				
	BZ	UYAMA, Y., Kato K., Ikada Y., "Surface Modification of Polymers by Grafting," Adv. Polym. Sci. 1998, 137, 1.				
	CA	VIKLUND, C.; Ponten, E.; Glad, B.; Irgum, K.; Horstedt, P.; Svec, F.; ""Molded" Macroporous Poly(glycidyl methacrylate-co-trimethylolpropane trimethacrylate) Materials with Fine Controlled Porous Properties: Preparation of Monoliths Using Photoinitiated Polymerization," Chem. Mater.; (Article); Feb 1997; 9(2); 463-471.				
	СВ	VIKLUND, C.; Svec F, Fréchet J. M. J., and Irgum K, "Fast Ion-Exchange HPLC of Proteins Using Porous Poly(glycidyl methacrylate-co-ethylene dimethacrylate) Monoliths Grafted with Poly(2-acrylamido-2-methyl-1-propanesulfonic acid)," <i>Biotechnol. Prog.</i> ; 1997; 13(5) pp 597 – 600.				
	cc	VIKLUND, C and Irgum, K., "Synthesis of Porous Zwitterionic Sulfobetaine Monoliths and Characterization of Their Interaction with Proteins, <i>Macromolecules</i> , 33, 2539-2544, March 11, 2000.				
	CD	WANG B, Abdulali-Kanji Z, Dodwell E, Horton JH, Oleschuk RD, "Surface characterization using chemical force microscopy and the flow performance of modified polydimethylsiloxane for microfluidic device applications," Electrophoresis, Volume 24, Issue 9, 2003, p 1442-1450.				
	CE	XIE S, Svec F, Frechet JM.,* **Design of reactive porous polymer supports for high throughput bioreactors: poly(2-vinyl-4,4-dimethylazlactone-co-acrylamide- co-ethylene dimethacrylate) monoliths,* Biotechnol Bioeng. 1999 Jan 5; 62(1):30-5.				
·	CF	YU C., Svec F., Fréchet J.M.J., Toward stationary phases for chromatography on a microchip: Molded porous polymer monoliths prepared in capillaries by photoinitiated in situ polymerization as separation media for electrochromatography," <i>Electrophoresis</i> 2000, <i>21</i> , 120.				
	CG	YU C., Davey M.H., Svec F., Fréchet J.M.J., "Monolithic Porous Polymer for On-Chip Solid-Phase Extraction and Preconcentration Prepared by Photoinitiated in Situ Polymerization within a Microfluidic Device," <i>Anal. Chem.</i> 2001, 73, 5088.				
	СН	YU C., Xu M., Svec F., Fréchet J.M.J. "Preparation of monolithic polymers with controlled porous properties for microfluidic chip applications using photoinitiated free-radical polymerization," <i>J. Polym. Sci., Polym. Chem.</i> 2002, 40, 755.				

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. SF 1446704 v1



¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.